

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
19 April 2001 (19.04.2001)

PCT

(10) International Publication Number
WO 01/27158 A2

- (51) International Patent Classification⁷: C07K 14/705
Street, 75751 Rishon LeZion (IL). YANAI, Itai [US/US];
55 Leicester Street, Brookline, MA 02146 (US).
- (21) International Application Number: PCT/US00/27582
- (22) International Filing Date: 6 October 2000 (06.10.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/158,615 8 October 1999 (08.10.1999) US
60/184,809 24 February 2000 (24.02.2000) US
- (71) Applicants (for all designated States except US): DIGIS-
CENTS [US/US]; Suite 720, 1814 Franklin Street, Oak-
land, CA 94612 (US). YEDA RESEARCH AND DE-
VELOPMENT CO., LTD. [IL/IL]; Weizmann Institute of
Science, P.O. Box 95, 76100 Rehovot (IL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BELLENSON, Joel
[US/US]; 244 Lakeside Drive, Apartment 15, Oakland,
CA 94612 (US). SMITH, Dexter [US/US]; 868 Trestle
Glen Road, Oakland, CA 94610 (US). LANCET, Doron
[IL/IL]; 15 Weizmann Street, 76280 Rehovot (IL). GLUS-
MAN, Gustavo [IL/IL]; 33/37 Ha'Alon Street, 79845
Bnei Ayish (IL). FUCHS, Tania [IL/IL]; 12 Harav neria
- (81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— Without international search report and to be republished
upon receipt of that report.
- For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

WO 01/27158 A2

(54) Title: OLFACTORY RECEPTOR SEQUENCES

(57) Abstract: The present invention provides polynucleotide sequences which encode polypeptides involved in olfactory sensation. The present invention also provides the polypeptides encoded by these polynucleotide sequences, vectors comprising these polynucleotide sequences and host cells transfected with these polynucleotide sequences. The present invention further provides for functional variants and homologues of these polynucleotide sequences and the polypeptides encoded by these polynucleotides. Libraries of polypeptides are also provided. Also included in the present invention is the use of these polypeptides and libraries of polypeptides in screening odorant molecules to determine the correspondence (scent representation, scent fingerprint or scent profile) between individual odorant receptors (the polypeptides) and particular odorant molecules. Also encompassed by the present invention is the use of the scent representation, scent fingerprint or scent profile to re-create and edit scents.